

Patent claims

1. A polyester film which has at least one base layer (B) and at least one matt overlayer (A), wherein
 - a) the transverse shrinkage s_T of the film is from 1 to 2.3%,
 - b) the transverse linear expansion of the film during thermo-mechanical analysis (TMA) is smaller than or equal to 0.2%,
 - c) the overlayer (A) comprises particles which have a median particle diameter d_{50} of from 2.0 to 10 μm and a SPAN98 smaller than or equal to 2, and
 - d) the overlayer (A) comprises a polyester which has from 4 to 30 mol% of isophthalic acid units, based on the total amount of acid in the polyester in this layer.
2. The polyester film as claimed in claim 1, wherein the transverse shrinkage S_T is 1.2 to 2.2%.
3. The polyester film as claimed in claim 1, wherein the linear expansion of the film during TMA is smaller than or equal to 0.18%
4. The polyester film as claimed in claim 1, wherein the particle concentration in the overlayer (A) is from 10000 to 70000 ppm, based on the total weight of this layer.
5. The polyester film as claimed in claim 1, wherein the particle diameter d_{50} is from 2.2 to 9 μm .
6. The polyester film as claimed in claim 1, wherein the polyester present in the overlayer (A) has from 6 to 28 mol% of isophthalic acid units.
7. The polyester film as claimed in claim 1, wherein the particles present in the overlayer (A) have a SPAN98 smaller than or equal to 1.9.

8. The polyester film as claimed in claim 1, wherein the particles present in the overlayer (A) are at least one of either organic or inorganic particles.
9. The polyester film as claimed in claim 1, wherein the polyester present in the overlayer (A) is a copolyester which comprises terephthalate units, isophthalate units, and ethylene glycol units.
10. The polyester film as claimed in claim 1, wherein the base layer (B) is composed of at least 80% by weight of a thermoplastic polyester.
11. The polyester film as claimed in claim 10, wherein the thermoplastic polyester of the base layer (B) comprises at least one of terephthalic acid units and ethylene glycol units, or naphthalene-2,6-dicarboxylic acid units and ethylene glycol units.
12. The polyester film as claimed in claim 10, wherein polyethylene terephthalate is used as thermoplastic polyester for the base layer (B).
13. The polyester film as claimed in claim 1, wherein no external particles are present in the base layer (B).
14. The polyester film as claimed in claim 1, which has an ABC layer structure, (A) and (C) being the overlayers, which are identical or different.
15. The polyester film as claimed in claim 1, which has a planar orientation Δp smaller than or equal to 0.170.
16. The polyester film as claimed in claim 1, which has an opacity smaller than 45%.
17. The polyester film as claimed in claim 1, which has a volume opacity smaller than

15%.

18. The polyester film as claimed in claim 1, which has a transparency greater than 80.
19. The polyester film as claimed in claim 1, wherein the matt overlayer (A) has a gloss smaller than 70.
20. A process for producing a polyester film as claimed in claim 1, encompassing the steps of:
 - a) production of a multilayer film by coextrusion and shaping of the melt to give flat melt films,
 - b) biaxial stretching of the film, and
 - c) heat-setting of the stretched film.
21. The process as claimed in claim 20, wherein the heat-setting of the stretched film takes place at from 150 to 250°C for a period of from 0.1 to 10 s.
22. The process as claimed in claim 21, wherein the setting temperature and/or the setting time is/are varied in order to establish the desired shrinkage behavior.
23. Flexible packaging film comprising a polyester film as claimed in claim 1.
24. Flexible packaging film according to claim 23, wherein the packaging procedure takes place on high-speed packaging machinery.